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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520.811	06/27/2006	Thomas Ostertag	87305.0044	7043

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BAKER & HOSTETLER LLP  
WASHINGTON SQUARE, SUITE 1100  
1050 CONNECTICUT AVE. N.W.  
WASHINGTON, DC 20036-5304

EXAMINER
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AKBAR, MUHAMMAD A

ART UNIT	PAPER NUMBER
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2618

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/520,811	Applicant(s) OSTERTAG ET AL.	
	Examiner Muhammad Akbar	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawing Objection***

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show in figure 1 (i.e. not showing legend) as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim(s) 1-5,10,15-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Wuidart (U.S. Pub. No. 2003/0164742 A1)

Regarding claim 1, Wuidart discloses a transponder circuit (see fig.1) comprising a resonator circuit with a high quality factor (resonator circuit L2, C2 generate high frequency para[004]), a demodulator, wherein an amplitude modulated signal that is transmitted by a transmitter/receiver device terminal (1 of fig.1) and thereby demodulate a frequency for exciting the resonator with a high quality factor (Q2) that corresponds to the resonance frequency of the resonator with a high quality factor (Q2) (see fig.1,2 and para[006],[0012],[0122],[0123]);

said transponder circuit additionally has a rectifier circuits (see para[004],[005]), power supply circuits (see para[003]) for an energy store and supply, and a semiconductor circuit ( i.e. semiconductor circuits comprising microprocessor, amplifier,

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oscillator circuits, see para[0003],[0055],) that are downstream of said resonator and the input impedance of said resonator with a high quality factor ( $Q_2$ ) is matched to the load impedance of said semiconductor circuit such that a supply voltage is obtained for said semiconductor circuit in said energy store by impedance transformation (see fig.1,2,3 and para[003],[004], [0050],[0055],[0064],[0065] ,[0074], [0122],[0123]).

Regarding claim 2, as discussed above with respect to claim 1, and Wuidart further discloses high frequency carrier signal (i.e. broadband signal ) configured to excite said resonator oscillator circuits (see para[006],[007], [0021]).

Regarding claim 3, as discussed above with respect to claim 1, and Wuidart further discloses transponder circuits comprising modifying variable amplitude (i.e. two-tone signal) for-configuring to excite said oscillator circuit resonator (see para[0053]).

Regarding claim 4,5, as discussed above with respect to claim 1, and Wuidart further discloses the excitation signal is matched to the resonance frequency of said resonator for identify the signal (see fig.1,2 and para[0064],[0065]); a quartz is used as resonator with a high quality factor (see para[0055],[0123]).

Regarding claim 10,15,16,17,18,19,20, as discussed above with respect to claim 1, and Wuidart further discloses transponder circuit comprising LC oscillating circuit is used as resonator with a high quality factor (see para[0122]);

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and inductive antenna (L2) is used as resonator with a high quality factor (see fig.1,3 and para[0056],[0123]);

tunable oscillators are used as resonators with a high quality factor (see fig.1 and para[0053],[0123]);

mechanical oscillators are used as resonators with a high quality factor (see fig.3 and para[0056],[0122]);

electromagnetic resonators are used as resonators with a high quality factor and to generate magnetostatic waves (see fig.1 and para[0059],[0123]);

and stored data value are used for calculating sensing strength based on the parameters (see fig.1,2,3 and para[0035],[0038]).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

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3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 6-9, 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wuidart (U.S. Pub. No. 2003/0164742 A1) and in view of Vig (U.S. Patent No. 5,744,902).

Regarding claim 6-9, 11-14, as discussed above with respect to claim 1, Wuidart discloses all the limitation except a piezoelectric resonator is used as resonator, and piezoelectric resonator made of langasite; a piezoelectric resonator made of gallium orthophosphate; a piezoelectric resonator made of lithium; a ceramic resonator is used as resonator; a cable resonator is used as resonator; a dielectric resonator is used as resonator; acoustic resonators are used as resonators with a high quality factor.

However, Vig teaches sensor devise using micro-resonator (same field of endeavor) wherein a piezoelectric resonator is used as resonator, piezoelectric

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resonator made of langasite; a piezoelectric resonator made of gallium orthophosphate; a piezoelectric resonator made of lithium ; a ceramic resonator is used as resonator; a cable resonator is used as resonator; a dielectric resonator is used as resonator; acoustic resonators are used as resonators with a high quality factor (see fig.5 and col.3 lines 45-53,col.7 lines 8-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the resonator substance for transponder circuits (as taught by Wuidart) by incorporate different piezoelectric resonator made of langasite, gallium orthophosphate, lithium niobate, ceramic, acoustic and dielectric materials (as taught by Vig) to obtain accurate and sensitive sensor for transponder circuits.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (7.96)

The following patent are cited to further show the state of the art with respect to clips and bookmarks in general:

U.S. Patent No. 6,894,616 to Forster teaches piezoelectric system for transponder circuits.

U.S. PG. Pub. 2003/0006901 A1 to Kim et al teaches passive transponder circuits.



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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Muhammad Akbar whose telephone number is (571)-270-1218. The examiner can normally be reached on Monday- Thursday (8:00 A.M.- 5:00P.M).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lana Le can be reached on 571-272-7891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MA



1-22-08

LANA LE  
PRIMARY EXAMINER